I. AMENDMENTS

AMENDMENTS TO THE CLAIMS

Please enter the amendment to claim 8, as shown below.

Please enter new claim 23, as shown below.

1.-7. (Canceled)

8. (Currently amended) A method for identifying an agent that modulates a biological activity of DNA-PK, comprising:

a) adding an agent to be tested to a sample, the sample comprising DNA-PK and an immunomodulatory nucleic acid molecule, under conditions which favor binding of the immunomodulatory nucleic acid molecule to DNA-PK, thereby forming a test sample, wherein the immunomodulatory nucleic acid molecule is a DNA molecule that, when bound to Ku antigen, activates DNA-PKcs, wherein the immunomodulatory nucleic acid molecule comprises a nucleotide sequence selected from 5'-Purine-Purine-C-G-Pyrimidine-Pyrimidine-3', 5'-Purine-TCG-Pyrimidine-Pyrimidine-3'; 5'-$(TCG)_n$-3', where n is any integer that is 1 or greater, ~~5'-Purine-Purine-CG-Pyrimidine-Pyrimidine-CG-3',~~ 5'-Purine-TCG-Pyrimidine-Pyrimidine-CG-3', and 5'-Purine-Purine -CG-Pyrimidine-Pyrimidine-CG-3'; and

b) detecting a biological activity of DNA-PK protein in the test sample, as compared to a control sample lacking the agent, wherein an increase or a decrease in the biological activity of DNA-PK indicates that the agent modulates a biological activity of DNA-PK.

9. (Original) The method of claim 8, wherein the biological activity of DNA-PK is binding to an immunomodulatory nucleic acid molecule.

10. (Original) The method according to claim 9, wherein the method is a cell-free method, and the immunomodulatory nucleic acid molecule is detectably labeled.

11. (Original) The method of claim 8, wherein the biological activity of DNA-PK is activation of DNA-PKcs kinase activity.

12. (Original) The method of claim 8, wherein the method is a cell-based method and modulation of DNA-PK activity is detected by measuring an amount of IL-6 or IL-12 produced by the cell.

13.-22. (Canceled)

23. (New) A method for identifying an agent that modulates a biological activity of DNA-PK, comprising:

a) adding an agent to be tested to a sample, the sample comprising DNA-PK and an immunomodulatory nucleic acid molecule, under conditions which favor binding of the immunomodulatory nucleic acid molecule to DNA-PK, thereby forming a test sample, wherein the immunomodulatory nucleic acid molecule is a DNA molecule that, when bound to Ku antigen, activates DNA-PKcs, wherein the immunomodulatory nucleic acid molecule comprises a nucleotide sequence selected from 5'-Purine-Purine-C-G-Pyrimidine-Pyrimidine-3', 5'-Purine-TCG-Pyrimidine-Pyrimidine-3'; 5'-$(TCG)_n$-3', where n is any integer that is 1 or greater, 5'-Purine-TCG-Pyrimidine-Pyrimidine-CG-3', and 5'-Purine-Purine -CG-Pyrimidine-Pyrimidine-CG-3'; and

b) detecting a biological activity of DNA-PK protein in the test sample, as compared to a control sample lacking the agent, wherein an increase or a decrease in the biological activity of DNA-PK indicates that the agent modulates a biological activity of DNA-PK, wherein the biological activity of DNA-PK is selected from activation of DNA-PKcs kinase activity and binding to Ku antigen.